STATE OF MARYLAND

DHMH

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April 13, 2012

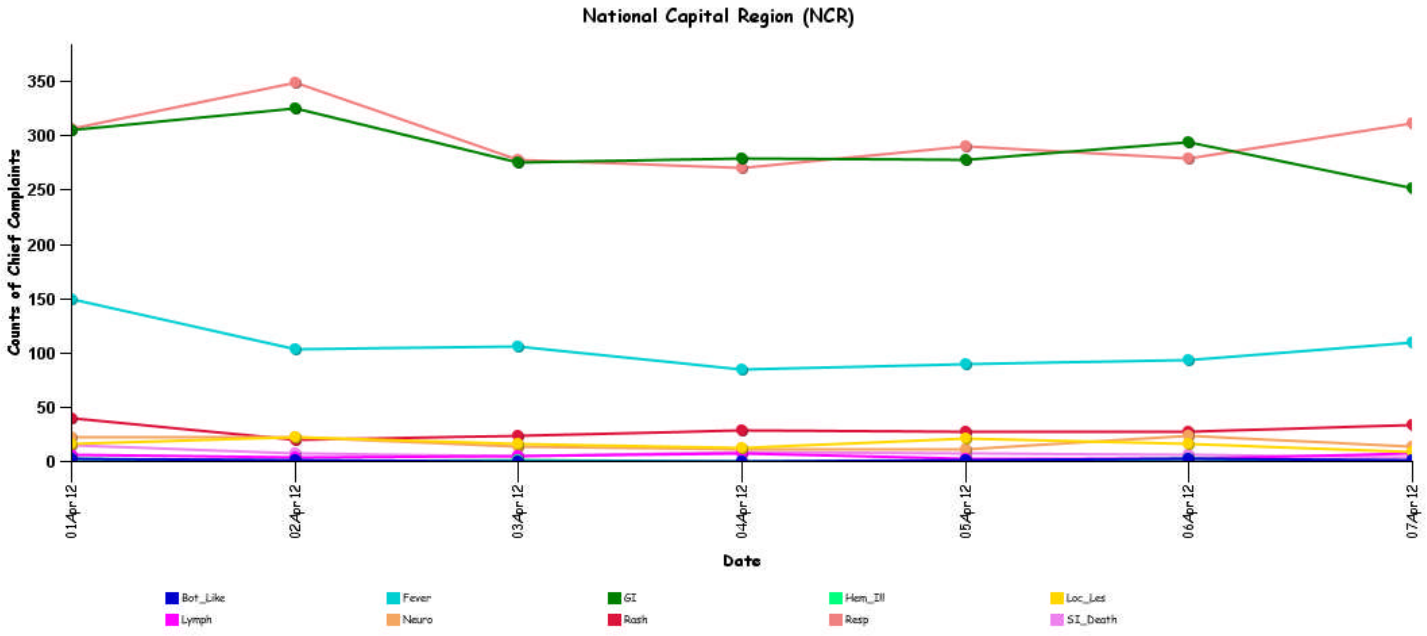
Public Health & Emergency Preparedness Bulletin: # 2012:14
Reporting for the week ending 04/07/12 (MMWR Week #14)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

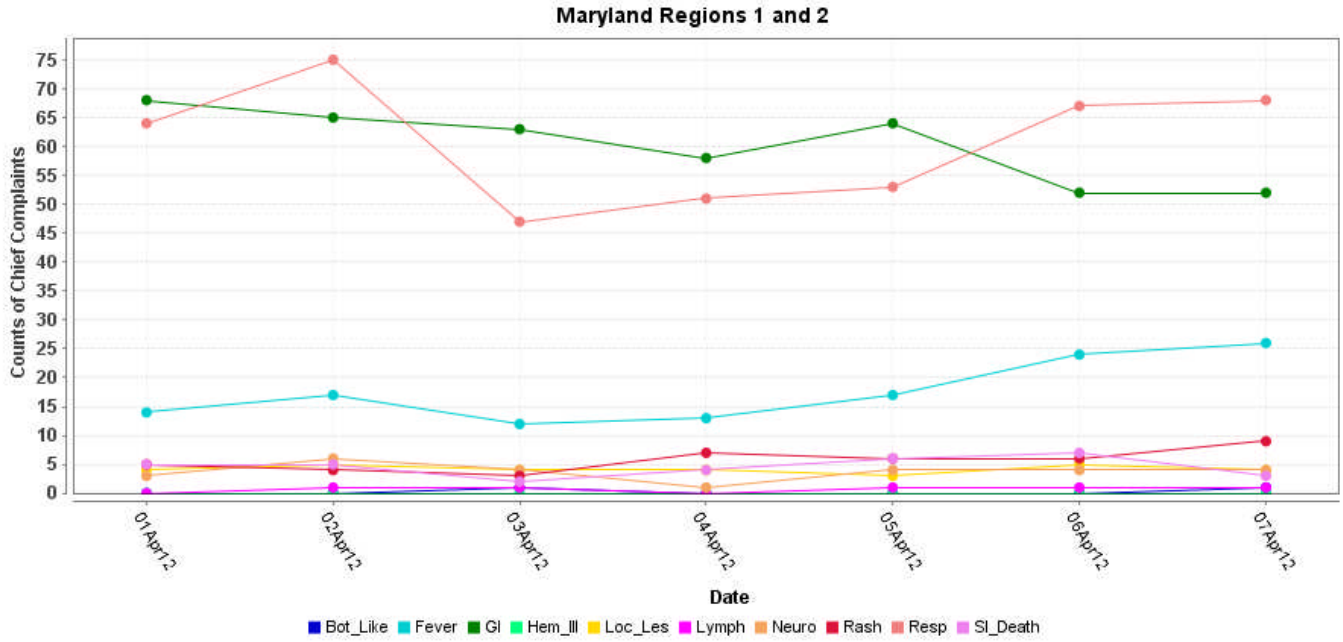
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

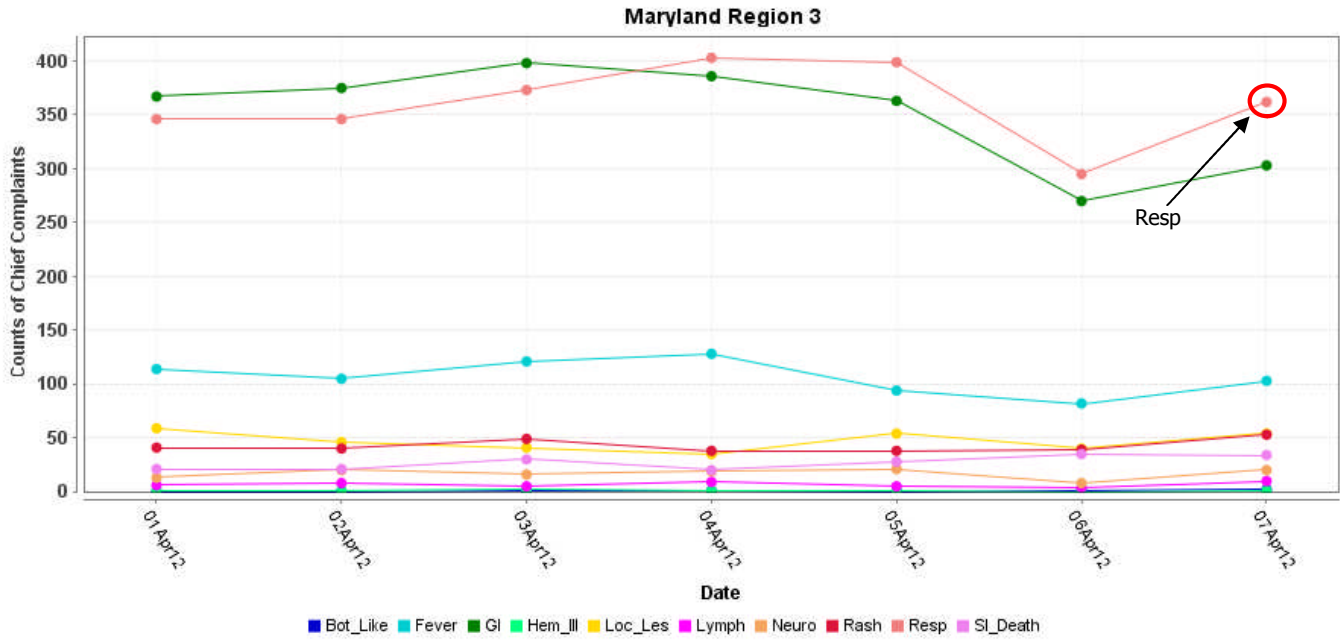


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

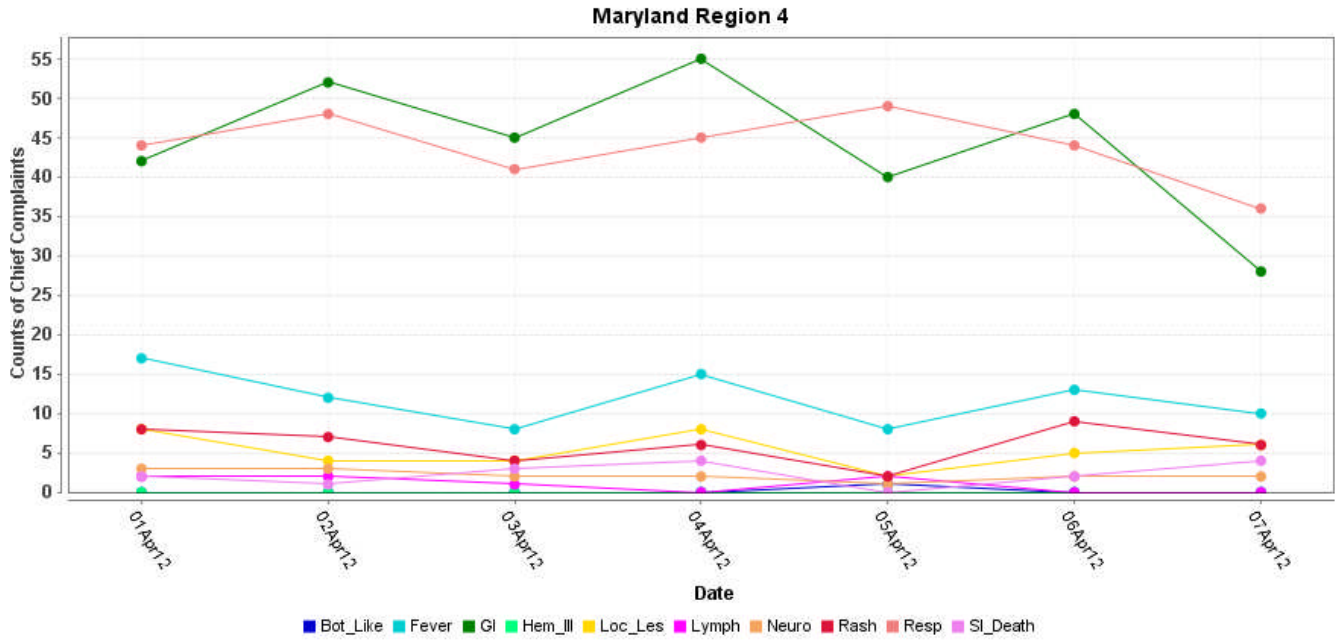
MARYLAND ESSENCE:



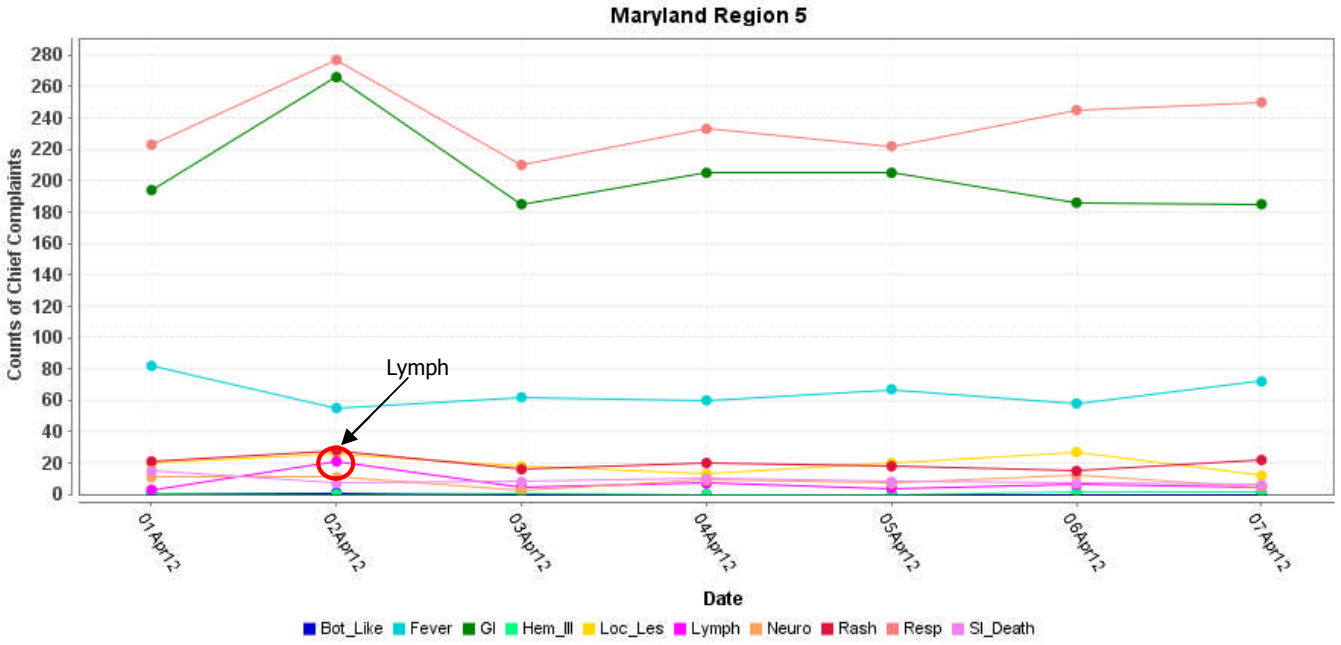
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



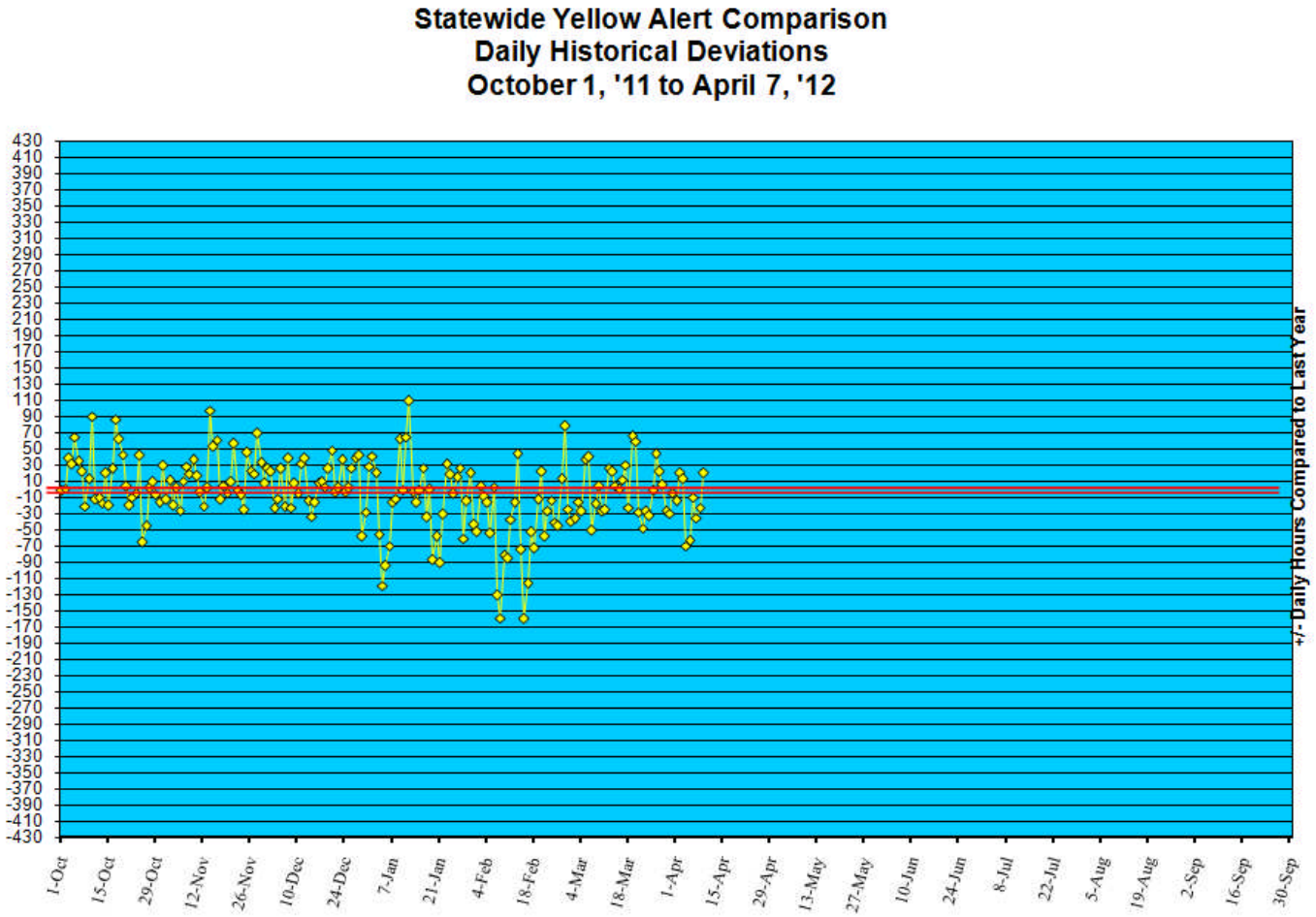
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 1 – April 7, 2012):	8	0
Prior week (March 25 – March 31, 2012):	8	0
Week#14, 2011 (April 2 – April 8, 2011):	7	0

5 outbreaks was reported to DHMH during MMWR Week 14 (April 1 – April 7, 2012)

3 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS in a Nursing Home
2 outbreaks of GASTROENTERITIS in Assisted Living Facilities

2 Rash illness outbreaks
1 outbreak of SCABIES in a Nursing Home
1 outbreak of HAND, FOOT, AND MOUTH DISEASE at a Daycare

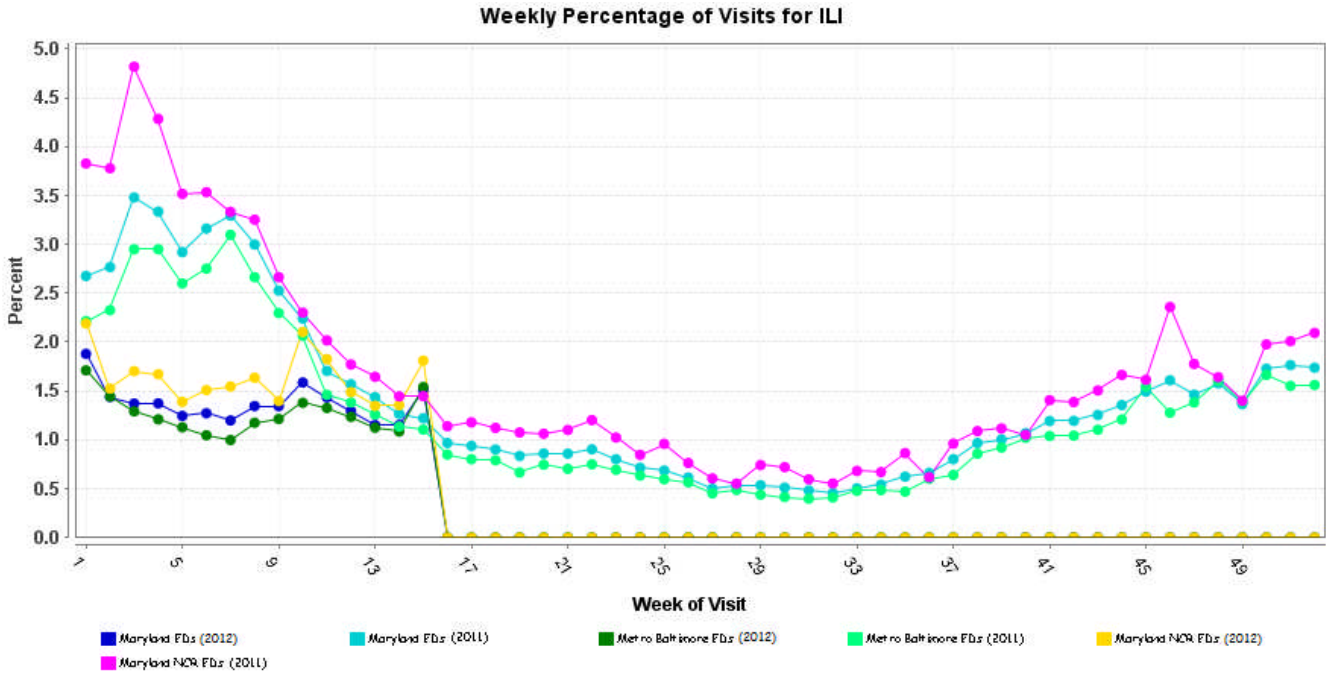
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 14 was: Sporadic Activity, Minimal Intensity.

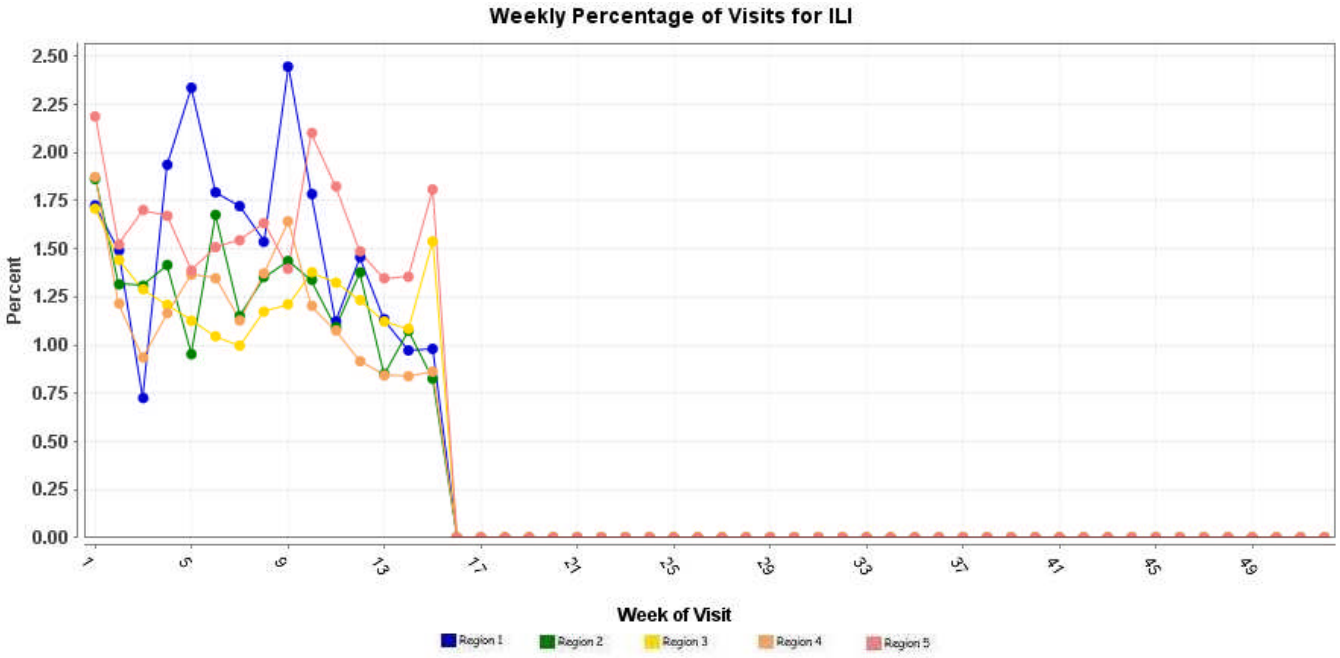
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



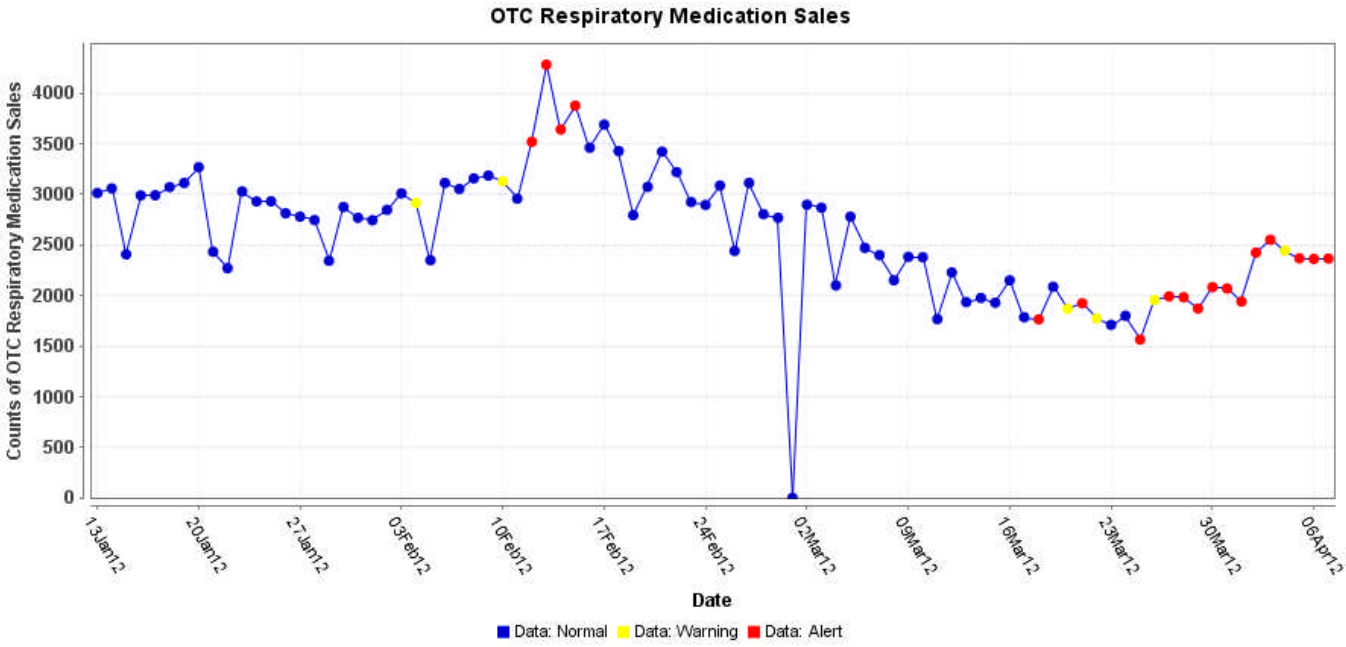
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of April 5, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 601, of which 354 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (CAMBODIA): 5 April 2012, The Ministry of Health (MoH) of the Kingdom of Cambodia has announced a confirmed case of human infection with avian influenza A (H5N1) virus. The 6-year-old female from Kampong Chhnang Province developed symptoms on 22 Mar 2012. After initial treatment at her village, she was later admitted to hospital in Phnom Penh on 28 Mar 2012. She died on 30 Mar 2012. Infection with avian influenza A (H5N1) virus was confirmed by Institut Pasteur du Cambodge on 30 Mar 2012. It was reported that the patient had contact with sick or dead poultry prior to onset of illness. The National and local Rapid Response Teams (RRT) are conducting outbreak investigation and response following the national protocol. In addition, a public health education campaign is being conducted to inform families on how to protect themselves from contracting avian influenza. To date, of the 20 cases reported in Cambodia since 2005, 18 have been fatal.

NATIONAL DISEASE REPORTS

SALMONELLOSIS (USA): 4 April 2012, CDC is collaborating with public health officials in many states and the FDA to investigate a multistate outbreak of *Salmonella enterica* serotype Bareilly infections. *S. Bareilly* is an unusual serotype. Public health investigators used DNA "fingerprints" of bacteria obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that may be part of this outbreak. They used data from PulseNet, the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories that performs molecular surveillance of foodborne infections. A total of 93 individuals infected with the outbreak strain of *S. Bareilly* have been reported from 19 states and the District of Columbia. The number of ill people identified in each state with the outbreak strain is as follows: Alabama (2), Arkansas (1), Connecticut (4), District of Columbia (2), Georgia (4), Illinois (8), Louisiana (2), Maryland (8), Massachusetts (4), Mississippi (1), Missouri (1), New Jersey (6), New York (23), North Carolina (2), Pennsylvania (2), Rhode Island (4), South Carolina (3), Texas (3), Virginia (5), and Wisconsin (8). Among 93 persons for whom information is available, illness onset dates range from 28 Jan 2012 to 23 Mar 2012. Ill persons range in age from 4 to 78 years, with a median age of 31. 46 percent of patients are female. Among 51 persons with available information, 10 (20 percent) reported being hospitalized. No deaths have been reported. Illnesses that occurred after 4 Mar 2012, might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported. This takes an average of 2 to 3 weeks. State public health officials are interviewing ill persons to obtain information regarding foods they might have eaten and other exposures in the week prior to illness. On initial interviews, many of the ill persons reported consuming sushi, sashimi, or similar foods in a variety of locations in the week before becoming ill. Among 51 ill persons for whom information is available, 35 (69 percent) reported consuming sushi, sashimi, or similar foods in the week before illness onset. This percentage is higher than expected compared with results from a survey of healthy persons in which 5 percent of persons reported consuming sushi, sashimi, or ceviche made with raw fish or shellfish in the 7 days before they were interviewed. The investigation into specific types of sushi is ongoing. The investigation has not conclusively identified a food source. Investigation is ongoing into individual food items and their sources. CDC, FDA, and state and local public health partners are continuing surveillance to identify and interview other ill persons about the foods they ate. CDC will update the public on the progress of this investigation as information becomes available. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

LEGIONELLOSIS (NEW ZEALAND): 3 April 2012, About 300 Auckland buildings may be affected by a major outbreak of the potentially fatal legionnaires' disease. The outbreak has prompted urgent calls for building owners, mostly within the CBD [Central Business District], to overhaul mechanical ventilation systems that include cooling towers. In the last 6 weeks, 9 cases of legionnaires' disease have been recorded in the [Auckland] region. A typical 6-week period would see one or 2 cases notified. The disease is a form of pneumonia that can be life threatening for some. The condition of the 9 people with the disease is not known. Symptoms can include headache, diarrhoea, dry cough, drowsiness, and delirium. It is treated with antibiotics, but most people who contract the disease are hospitalised. "This is an urgent matter concerning the health of our population," said Dr Simon Baker, medical officer of health with the Auckland Regional Public Health Service [ARPHS]. Auckland Council has set up a rapid response team who are calling building owners to ensure they shock-dose treat their cooling systems. The council has also called water treatment companies who have already treated some buildings today [3 Apr 2012]. Business owners and managers of buildings that contain an air conditioning tower or an industrial process that uses water to generate aerosols are being urged to immediately arrange shock-dosing of the systems. Baker said building managers had a responsibility to carry out the work, which means using a biocide to eliminate the _Legionella_ bacteria. Concerned members of the public and building owners can get more information on the council's central building information line on (09) 353 9358. Those who have concerns about their health should contact their GP. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

LASSA FEVER (NIGERIA): 4 April 2012, At the beginning of 2012, WHO was notified by the Federal Ministry of Health in Nigeria of an outbreak of Lassa fever. As of 22 Mar 2012, 623 suspected cases, including 70 deaths have been recorded from 19 of the 36 States since the beginning of the year. Laboratory analysis undertaken at the Irrua Specialist Teaching Hospital, Irrua Edo State has confirmed the presence of Lassa virus infection in 108 patients. 3 doctors and 4 nurses were reported to be among the fatalities. This information is provisional and subject to change when laboratory results

for Lassa fever in suspected cases become available. The Federal and State governments are responding to the outbreak by enhancing the disease surveillance for early detection, reinforcing treatment of patients, and conducting awareness campaigns among the affected population. Major challenges are the ongoing security risks in the country limiting access to some areas as well as the limited availability of resources to respond to the escalating outbreak. WHO does not advise or recommend any restrictions on travel or trade with Nigeria. Travellers returning from affected areas who develop symptoms of fever, malaise, headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhea, and abdominal pain should seek medical advice. People usually become infected with Lassa virus from exposure to infected rodents belonging to *Mastomys*. Person-to-person transmission occurs through direct contact with sick patients in both community and health care settings. Those at greatest risk are persons living in rural areas where *Mastomys* [rodents] are found. Health care workers are at risk if adequate infection control practices are not maintained. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS (EL SALVADOR): 7 April 2012, Chalchuapa Hospital attended 11 people with symptoms of poisoning after consuming contaminated with poison tamales. Two children were killed on Thursday after consuming a contaminated or poisoned tamales in Canton Township, Coco Chalchuapa, Santa Ana Another 11 people, including 8 children, were poisoned by food consumption between 5 and 6 pm that day. Those affected were admitted to emergency in the National Hospital Chalchuapa. The director of the hospital, Walter Flores, confirmed the deaths of 2 children, a 9 year old and an 11 year old. The 2 children died on the way to the village of El Coco, which is about 10 miles from the hospital. According to Flores, neither child had vital signs at admission. "Nothing could be done for them," he said. After the children, there were 11 other people who showed symptoms of poisoning, the doctors on duty explained. Most of them had difficulty breathing, sweating and salivation. "Five of the patients with the greater severity were transported to San Juan de Dios Hospital in Santa Ana, and another 2 had severe cases of intoxication," said the director of the health center. One patient, a 22 year old was moved to the intensive care unit (ICU) in Santa Ana, Beatriz Adriana Esquivel, confirmed Santaneco. At first, when doctors interviewed relatives of intoxicated people coming from the cantons El Coco and Galeano, they had consumed one common food: tamales made that evening at the home of a person, who was also intoxicated. The police were alerted by doctors of massive contamination, as reported by the speakers located in the community who do not eat tamales because of the risk. On Thursday afternoon the hostess and with 3 other women prepared food typical of the area, known as ticucos, made with cornmeal boiled in ash, and refried beans wrapped in banana leaf. Some of the collection also had chicken in the tamales, as replacement for the beans. That evening about 50 tamales were cooked. The owner began to distribute food among family and friends. Left home for 27. "She used to make tamales like this because there is no cooking on Good Friday. When the tamales are ready they are distributed." said one of the relatives. At 5:30 pm the host served 2 tamales to her grandson and saved 2 for herself. Minutes earlier he had delivered 12 tamales to a neighbor who had come to help prepare the tamales. Of that community there were at least 8 people were poisoned. Although research is not yet confirmed the cause of the poisoning, it is presumed that the tamales were prepared at the same table where the host had previously had been agricultural poison, which was used to kill tacuacines coming to eat their chickens. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable